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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/529,210	07/24/2000	GORDON REX PATERSON DOUGAL	9052-53	1793

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EXAMINER

JOHNSON, III, HENRY M

ART UNIT	PAPER NUMBER
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3739

DATE MAILED: 01/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/529,210

Applicant(s)

DOUGAL, GORDON REX
PATERSON

Examiner

Hank Johnson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because the reference numbers repeat for each figure yielding multiple designations for any given reference number. Further the figures are difficult to understand and lack critical structural detail, specifically the referenced control electronics are not shown nor is it apparent where they might be located. In Figures 1-4, it is not apparent how the emitter is mounted and how the side shield would exclude ambient light except on an object that exactly matches the shape of the shield. Labels on the drawings themselves regarding the view would aid in the understanding. The location of the loop does not appear to be the same in Figure 1 as in Figure 3 (opposite sides). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: Due to the reuse of the reference labels in the figures, the specification is difficult to understand. The specification will require revision when the drawing numbers are corrected.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

✓ Claim 17 cites excluding ambient radiation below 400-500 nm.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this

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application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-4, 6-12, 15-24 and 27-30 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,063,108 to Salansky et al. Salansky et al discloses an apparatus for treating tissue that uses radiation in the range of 400-2000nm (Col. 3, line 44) with an intensity of from 0.2 to 5000 mW/cm². The apparatus uses light emitting diodes (Col. 3, line 51) that inherently produce divergent radiation. Diodes, by definition, include a PN junction. Salansky et al teaches the radiation can be either pulsed or continuous with average powers adjustable by the processor over a wide range by varying the pulse repetition rates over a wide range of hertz and the pulse durations from microsecond to milliseconds (Col 14, line 31). The treatments disclosed by Salansky et al, provide exposure times from 3 to 500 seconds (Table 8) and dosages in Joules/ cm² (Table 5) as is common in the art. A display shows system parameters such as timer, power, and frequency (Col. 23, line 24). Salansky et al teaches treating numerous afflictions including herpes (Col. 37, line 17). The treatments indicated in claims 7-9 are intended use and have been given limited patentable weight. Figure 13 shows a flexible applicator that can be wrapped around the surface contours of the body (Col. 26, line 1) that inherently reduces the amount of ambient light.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,063,108 to Salansky et al. Salansky et al does not disclose expressly the specific divergence of the emitting device. Applicant has not disclosed that the increased beam divergence provides any advantage or unexpected result. Therefore, pending a statement of criticality, the cited divergence is considered to be an obvious design choice to one having ordinary skill in the art.

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Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,063,108 to Salansky et al. Salansky et al cites repetition frequencies from 0 to 200 Hz and 1000 to 10,000 Hz, yet does not disclose 201 to 999 Hz specifically. Applicant has not disclosed that the specific repetition rate provides any advantage or unexpected result. Salansky et al teaches treatment routines for many different afflictions that are programmed as protocols into the processor that controls the frequency, pulse width and repetition rate. There is no evidence that use of the unique frequency/repetition rate would produce any unexpected results. Therefore, pending a statement of criticality, the cited frequency/repetition rate is considered to be an obvious design choice to one having ordinary skill in the art.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,063,108 to Salansky et al in view of U.S. Patent 5,527,350 to Grove et al. Salansky et al is discussed above. Grove discloses the use of gas lasers (Col. 1, line 56) in tissue treatment. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a gas laser as disclosed by Grove et al in the device of Salansky et al to obtain the wavelength desired for treatment.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,063,108 to Salansky et al in view of Lasers and Electro-Optics by Christopher C. Davis, Cambridge University Press 1996, page 289. Salansky et al does not specifically disclose a diode with multiple PN junctions. The use of multiple PN junctions is old and well known in the art of LED construction as disclosed by Lasers and Electro-Optics by Christopher C. Davis, thereby making their use an obvious design choice.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patents 5,658,323 to Miller and 5,743,901 to Grove et al all disclose laser treatment systems using diode emitters in the range of 700-1100 nm for use with humans. U.S. Patent 5,989,245 to Prescott teaches a laser treatment apparatus using VCSEL diodes in the range of 400-1300 nm in a portable, wearable arrangement.

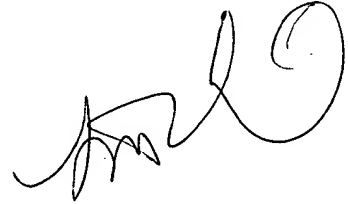
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hank Johnson whose telephone number is (703) 305-0910. The examiner can normally be reached on Monday through Friday from 7:00 AM to 4:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C Dvorak can be reached on (703) 308-0994. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

Hmj
December 21, 2001

A handwritten signature in black ink, appearing to read 'Linda C. M. Dvorak', with a large, stylized loop at the end.

**LINDA C. M. DVORAK
SUPERVISORY PATENT EXAMINER
GROUP 3700**

Attachment for PTO-948 (Rev. 03/01, or earlier)
6/18/01

The below text replaces the pre-printed text under the heading, "Information on How to Effect Drawing Changes," on the back of the PTO-948 (Rev. 03/01, or earlier) form.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. Correction of Informalities -- 37 CFR 1.85

New corrected drawings must be filed with the changes incorporated therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the Notice of Allowability. Extensions of time may **NOT** be obtained under the provisions of 37 CFR 1.136(a) or (b) for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.

All changes to the drawings, other than informalities noted by the Draftsperson, **MUST** be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made other than correction of informalities, unless the examiner has approved the proposed changes.

Timing of Corrections

Applicant is required to submit the drawing corrections within the time period set in the attached Office communication. See 37 CFR 1.85(a).

Failure to take corrective action within the set period will result in **ABANDONMENT** of the application.